

ABSTRACT OF THE DISCLOSURE

An Improved Circuit Design and Optics System for Infrared Signal Transceivers is disclosed. The preferred system includes an IR transceiver assembly that is easily grasped by assemblers. Furthermore, the primary and secondary lenses associated with the transceiver system are easier to manufacture than current lens designs. Also, the heretofore critical lens separation between the infrared emitting and infrared detection devices and the primary lens is rendered a flexible dimension, dependent only upon the particular appliance in which the system is installed. The present invention permits the stand for infrared emitting and infrared detection devices to be eliminated as a result of exchanging a non-imaging transceiver system with the current imaging transceiver system. The present invention further comprises assembling or otherwise combining infrared emitting and infrared detection devices into a single infrared emitting/infrared detection device stack. Finally, the present invention provides a Ir transceiver assembly that has a smaller footprint by backside mounting and/or stacking the discrete devices.